



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 136331**

**TO: Rei-Tsang Shiao**  
**Location: 5a10 / 5c18**  
**Thursday, October 28, 2004**  
**Art Unit: 1626**  
**Phone: 272-0707**  
**Serial Number: 10 / 669863**

**From: Jan Delaval**  
**Location: Biotech-Chem Library**  
**Rem 1A51**  
**Phone: 272-2504**  
**jan.delaval@uspto.gov**

### **Search Notes**

Jan Deliver  
for search

1762-1

Access DB# \_\_\_\_\_

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Robert (Becky) Shin Examiner #: 7952 Date: 10/29/04  
Art Unit: 1626 Phone Number: 2-0707 Serial Number: 10/664/63  
Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

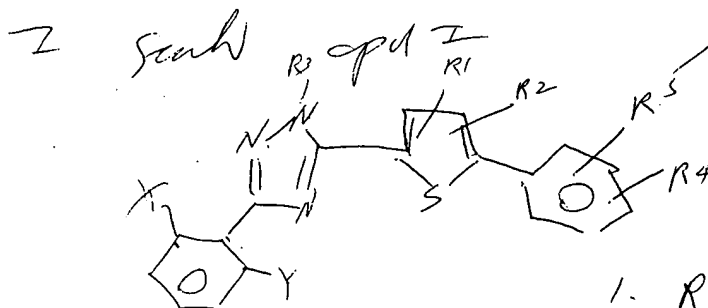
If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Insecticide  
Inventors (please provide full names): B. Hagde et al  
Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



1. R' ~ R<sup>5</sup>, ~~are~~

are sub.

2. X, Y are halogen

II Search methods of use  
of cpd I

STAFF USE ONLY

Searcher: Qan

Type of Search

NA Sequence (#)

Vendors and cost where applicable

STN ☒

=> fil reg

FILE 'REGISTRY' ENTERED AT 17:06:13 ON 28 OCT 2004  
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Property values tagged with IC are from the ZIC/VINITI data file  
 provided by InfoChem.

STRUCTURE FILE UPDATES: 27 OCT 2004 HIGHEST RN 770693-70-4  
 DICTIONARY FILE UPDATES: 27 OCT 2004 HIGHEST RN 770693-70-4

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

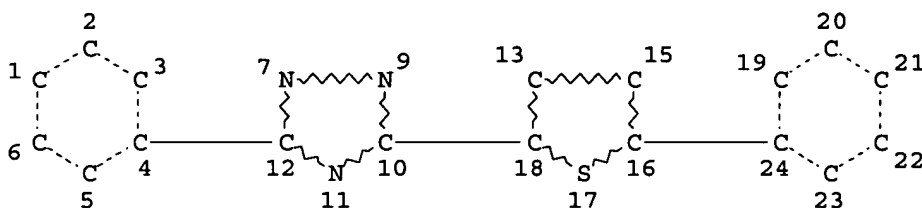
Please note that search-term pricing does apply when  
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
 information enter HELP PROP at an arrow prompt in the file or refer  
 to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d l3 sta que

L1 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 997 ITERATIONS

45 ANSWERS

SEARCH TIME: 00.00.01

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DEL HIS

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L1 STR

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L3 45 S L1 FUL

SAV L3 SHIAO664/A

DEL SHIAO664/A

SAV L3 SHIAO664/A TEMP

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0 S L3

L5 FILE 'HCAPLUS' ENTERED AT 17:05:47 ON 28 OCT 2004  
3 S L3

L6 FILE 'USPATFULL, USPAT2' ENTERED AT 17:05:50 ON 28 OCT 2004  
6 S L3  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 17:06:13 ON 28 OCT 2004

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FILE 'HCAPLUS' ENTERED AT 17:06:21 ON 28 OCT 2004  
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FILE COVERS 1907 - 28 Oct 2004 VOL 141 ISS 18  
FILE LAST UPDATED: 27 Oct 2004 (20041027/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L5 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN  
AN 2003:242328 HCAPLUS  
DN 138:271686  
ED Entered STN: 28 Mar 2003  
TI Preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-arylthien-2-(or 3)yl]-1,2,4-triazoles  
IN Hegde, Vidyadhar Babu; Bis, Scott Jerome; Yap, Maurice Chee Hoong; Perreault, Denise Marie; Tisdell, F. Gene; Dintenfass, Leonard Paul; Dripps, James Edwin; Gifford, James Michael; Guenthenspberger, Katherine Anne; Karr, Laura Lee; Schoonover, Joe Raymond  
PA Dow Agrosciences LLC Patent Department, USA  
SO PCT Int. Appl., 103 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
IC ICM C07D409-00  
ICS C07D409-14  
CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 5  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2003024961	A1	20030327	WO 2002-US29197	20020913
	WO 2003024961	C1	20040527		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003134748 A1 20030717 US 2002-244124 20020913  
 US 6770665 B2 20040803  
 EP 1425278 A1 20040609 EP 2002-770514 20020913

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

US 2004072887 A1 20040415 US 2003-664145 20030917  
 US 2004171661 A1 20040902 US 2003-664463 20030917  
 PRAI US 2001-322236P P 20010914  
 US 2002-244124 A3 20020913  
 WO 2002-US29197 W 20020913

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2003024961	ICM	C07D409-00
	ICS	C07D409-14
US 2004072887	ECLA	A01N043/653; C07D409/04; C07D409/14; C07D409/14
OS MARPAT 138:271686		
GI		

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title triazoles [I; Q = II-IV; X, Y = Cl, F; R1, R2 = H, alkyl, halo (provided that when Q = II or IV, then R1 and R2 are not both H); R3 = alkyl; R4 = halo, alkyl, alkoxy, etc.; R5 = H, halo or alkyl ether or haloalkyl ether, which when taken together with R4, form a 5-6 membered ring containing 1 or 2 oxygen atoms] which are effective in controlling lepidoptera, coleoptera, mites and other sucking pests, were prepared Thus, coupling of 4-(F3CO)C6H4B(OH)2 with the triazole V (preparation given) in the presence of Na2CO3, P(o-tolyl)3 and PdCl2(PPh3)2 in MeCN afforded 43% VI which showed 90-100% control against two-spotted spider mite at 2.5 ppm.

ST phenylarylthienyltriazole prepn insecticide pesticide; triazole phenyl arylthienyl prepn insecticide pesticide

IT Insecticides  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT Acari  
 Coleoptera  
 Lepidoptera  
 Pesticides  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles for controlling lepidoptera, coleoptera, mites and other sucking pests)

IT 503307-51-5P 503307-64-0P 503308-32-5P 503308-39-2P  
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503307-43-5P 503307-44-6P 503307-45-7P 503307-46-8P 503307-47-9P  
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RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN  
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or  
 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 107-08-4, 1-Iodopropane 116-15-4, Hexafluoropropene 6629-60-3,  
 Ethylhydrazine oxalate 25015-63-8 68834-05-9, 4-(1,1,2,2-  
 Tetrafluoroethoxy)bromobenzene 78071-30-4, 4-Methylthiophene-3-  
 carboxylic acid 139301-27-2, 4-Trifluoromethoxybenzeneboronic acid  
 153562-66-4, Ethyl 3-chlorothiophene-2-carboxylate 168971-68-4,  
 4-Bromo-3-fluoro-1-(trifluoromethoxy)benzene 264257-61-6 503309-13-5  
 503309-14-6 503309-15-7

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or  
 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 352535-96-7P 503308-96-1P 503308-97-2P 503308-98-3P 503308-99-4P  
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 503309-10-2P 503309-11-3P 503309-12-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or  
 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Dow Agrosiences Llc; WO 0024735 A 2000 HCAPLUS
- (2) Dow Agrosiences Llc; WO 0024737 A 2000 HCAPLUS
- (3) Tisdell, F; US 6015826 A 2000 HCAPLUS

IT 503308-03-0P 503308-04-1P 503308-05-2P

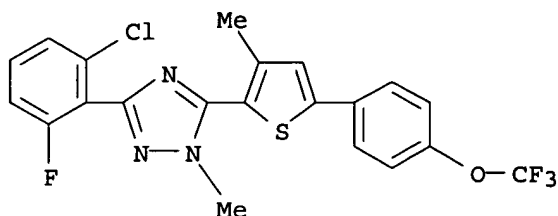
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 503308-82-5P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

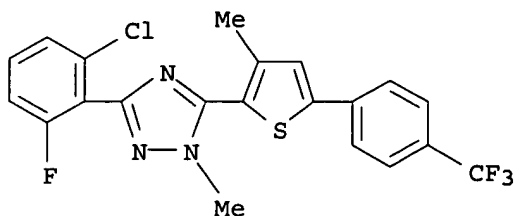
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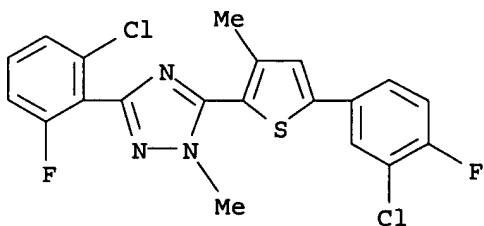
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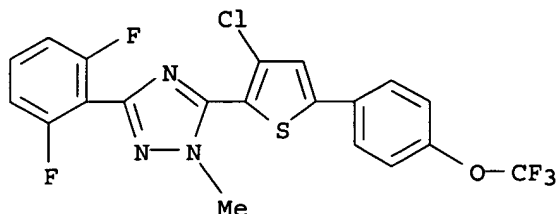
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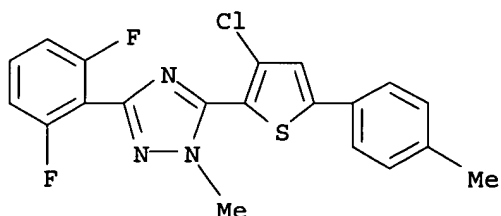
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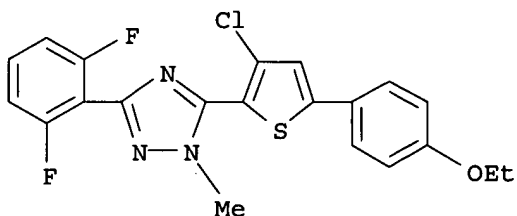
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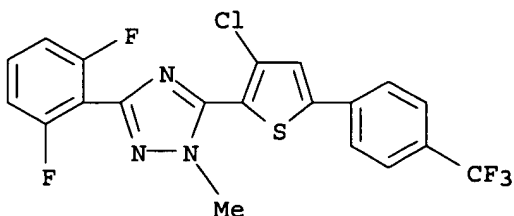
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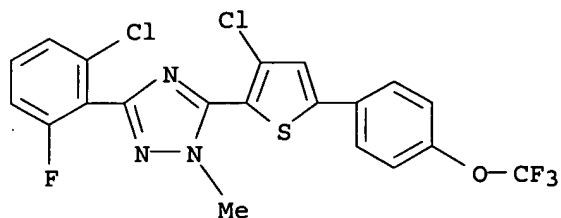


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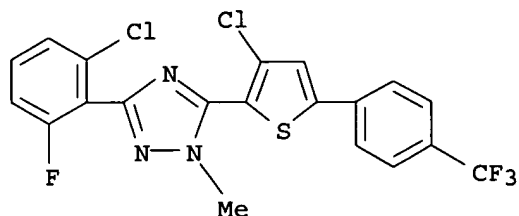


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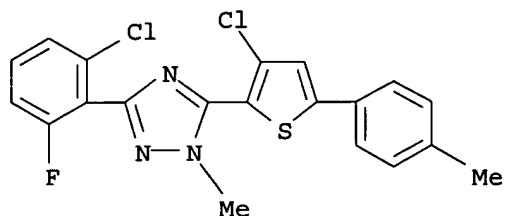
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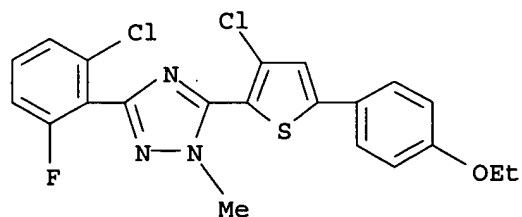
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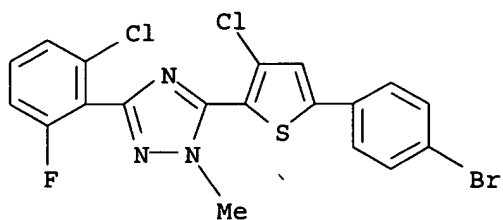
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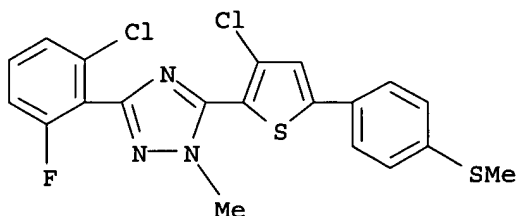
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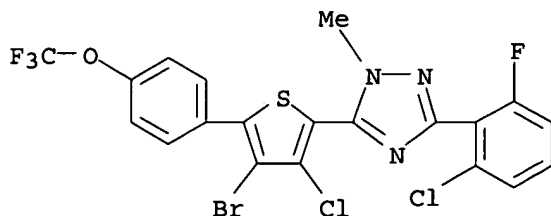
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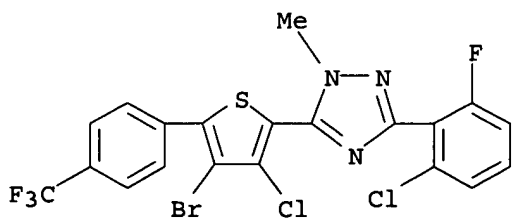
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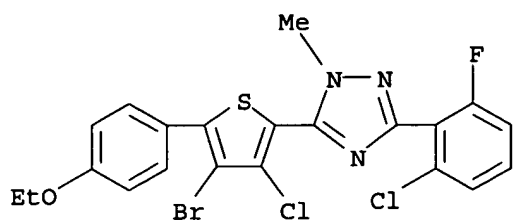
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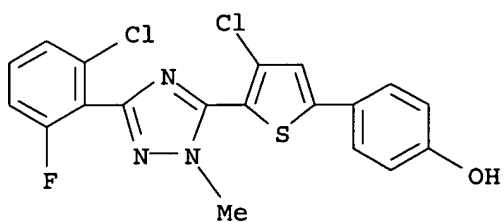
RN 503308-18-7 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[4-bromo-3-chloro-5-(4-ethoxyphenyl)-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



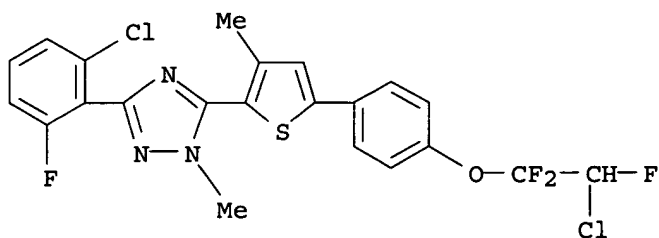
RN 503308-38-1 HCAPLUS

CN Phenol, 4-[4-chloro-5-[3-(2-chloro-6-fluorophenyl)-1-methyl-1H-1,2,4-triazol-5-yl]-2-thienyl]- (9CI) (CA INDEX NAME)



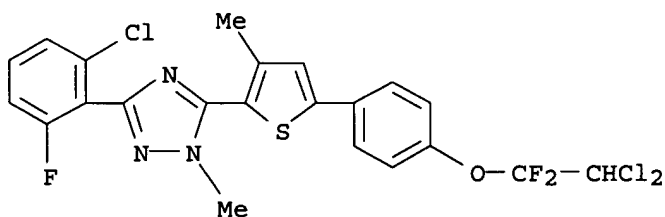
RN 503308-50-7 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[4-(2-chloro-1,1,2-trifluoroethoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



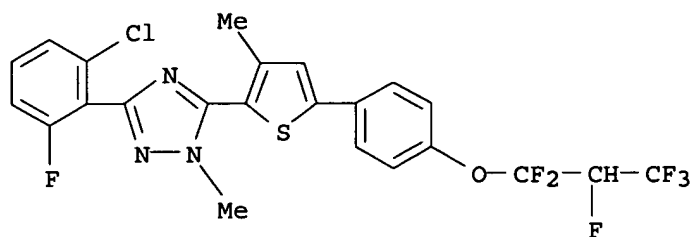
RN 503308-51-8 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[4-(2,2-dichloro-1,1-difluoroethoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



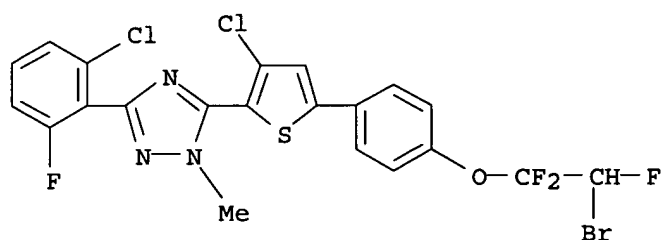
RN 503308-52-9 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[4-(1,1,2,3,3,3-hexafluoropropoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



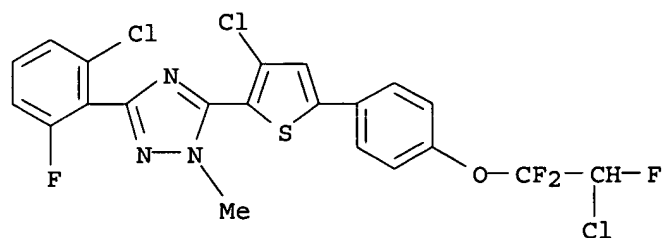
RN 503308-53-0 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[5-[4-(2-bromo-1,1,2-trifluoroethoxy)phenyl]-3-chloro-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



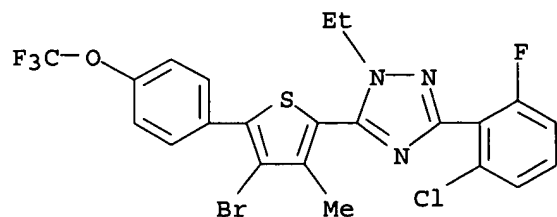
RN 503308-55-2 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[3-chloro-5-[4-(2-chloro-1,1,2-trifluoroethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



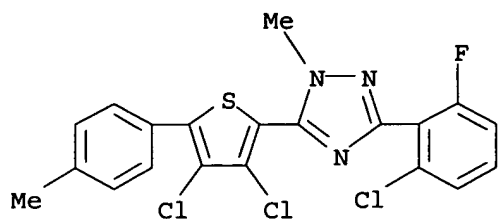
RN 503308-61-0 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[4-bromo-3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-ethyl- (9CI) (CA INDEX NAME)



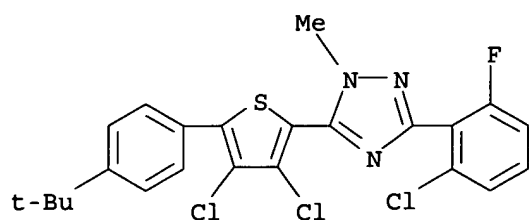
RN 503308-63-2 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[3,4-dichloro-5-(4-methylphenyl)-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



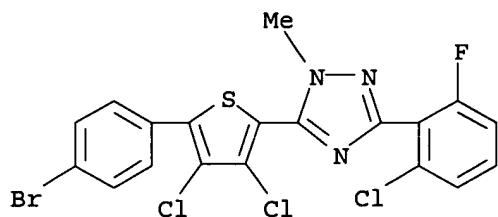
RN 503308-64-3 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[3,4-dichloro-5-[4-(1,1-dimethylethyl)phenyl]-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



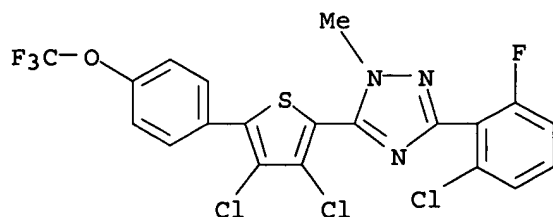
RN 503308-65-4 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-bromophenyl)-3,4-dichloro-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



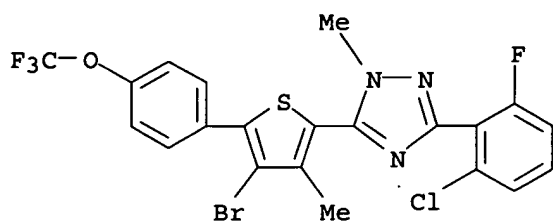
RN 503308-66-5 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-bromophenyl)-3,4-dichloro-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



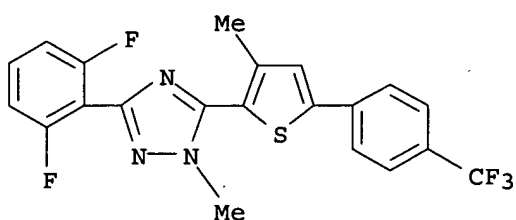
RN 503308-67-6 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[4-bromo-3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



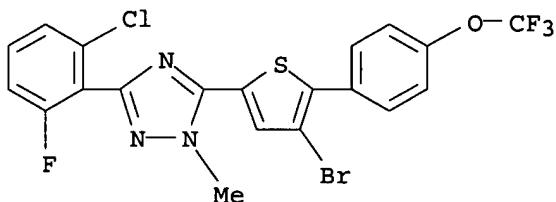
RN 503308-68-7 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2,6-difluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethyl)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



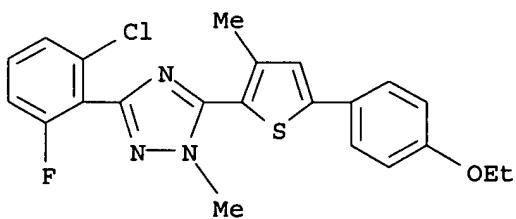
RN 503308-69-8 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[4-bromo-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]-3-(2-chloro-6-fluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



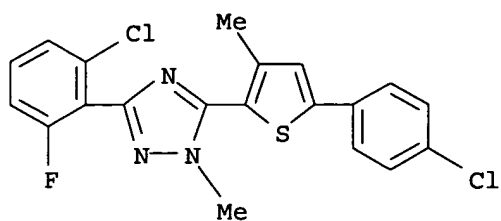
RN 503308-70-1 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-ethoxyphenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



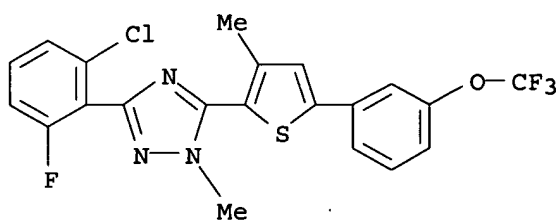
RN 503308-71-2 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-chlorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



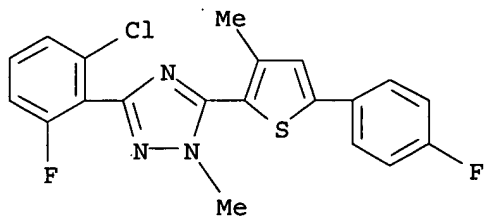
RN 503308-72-3 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[3-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



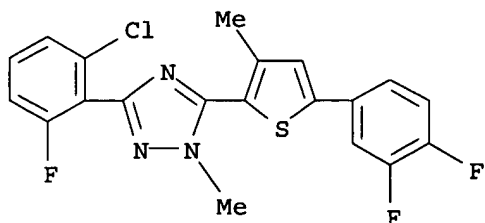
RN 503308-73-4 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-fluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



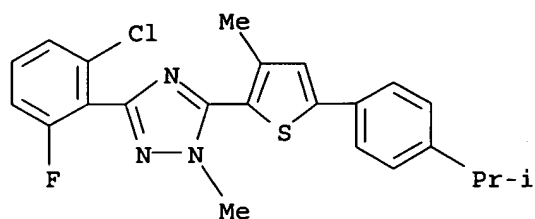
RN 503308-74-5 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(3,4-difluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



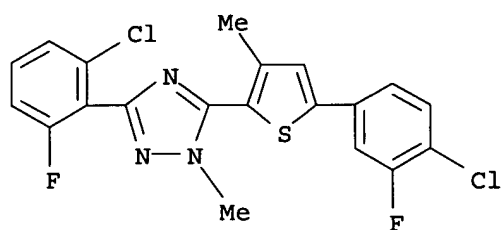
RN 503308-75-6 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(1-methylethyl)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



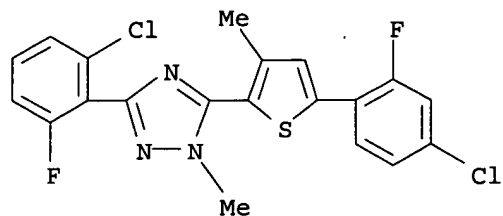
RN 503308-76-7 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-chloro-3-fluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



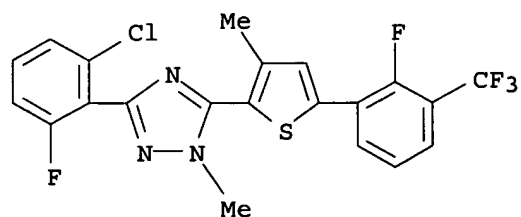
RN 503308-77-8 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(4-chloro-2-fluorophenyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



RN 503308-78-9 HCAPLUS

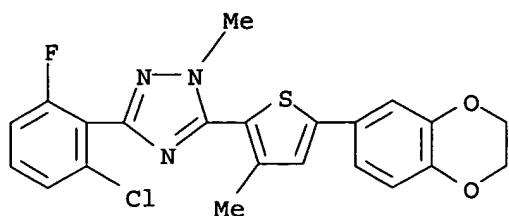
CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[2-fluoro-3-(trifluoromethyl)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



RN 503308-79-0 HCAPLUS

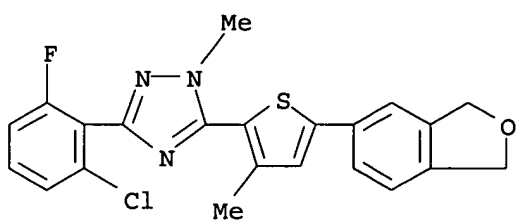
CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(2,3-dihydro-1,4-benzodioxin-6-yl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)





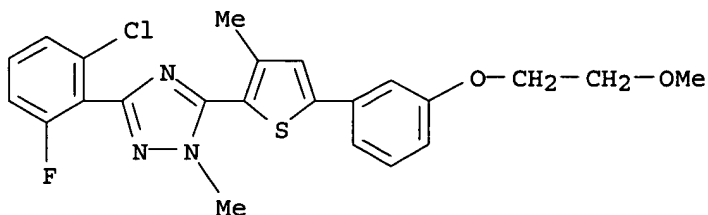
RN 503308-80-3 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-(1,3-dihydro-5-isobenzofuranyl)-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



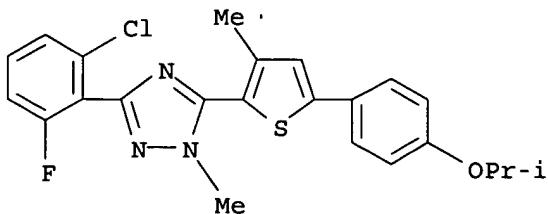
RN 503308-81-4 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-5-[5-[3-(2-methoxyethoxy)phenyl]-3-methyl-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



RN 503308-82-5 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(1-methylethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:47037 HCAPLUS

DN 132:89499

ED Entered STN: 20 Jan 2000

TI Preparation of 3-(substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole derivatives as acaricides and insecticides

IN Pechacek, James T.; Devries, Donald H.; Tisdell, Francis E.; Suhr, Robert G.; Johnson, Peter L.; Hatton, Christopher J.; Yap, Maurice Chee Hoong; Stockdale, Gary D.; Hamilton, Christopher T.; Johnson, George W.

PA USA

SO U.S., 35 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N043-653

ICS C07D409-04; C07D405-04

NCL 514383000

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 28

FAN.CNT 2

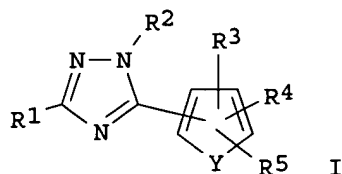
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6015826	A	20000118	US 1998-48601	19980326
	US 6262305	B1	20010717	US 1999-389702	19990903
PRAI	US 1997-44697P	P	19970424		
	US 1997-66135P	P	19971119		
	US 1998-48601	A3	19980326		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6015826	ICM	A01N043-653
	ICS	C07D409-04; C07D405-04
	NCL	514383000

OS MARPAT 132:89499

GI



AB 3-(Substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole derivs. I [R1 = substituted Ph; Y = O or S; R2 = (halo)alkyl, alkenyl, alkynyl or alkoxyalkyl; R3 = H, halo, (halo)alkyl, OH, alkoxy, alkoxyalkyl, etc.; R4, R5 = H, halo, (halo)alkyl, CN, etc.; R4CR5 = ring] are prepared as insecticides and acaricides.

ST triazole deriv prepn acaricide insecticide

IT Acaricides

Insecticides

(triazole derivs.)

IT 21075-83-2 254964-46-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(intermediate in preparation of triazole derivative acaricide and insecticide)

IT	22547-51-9P	37532-03-9P	60230-33-3P	82490-87-7P	93061-86-0P
	152170-04-2P	165597-32-0P	167907-35-9P	214409-22-0P	214409-23-1P
	214409-24-2P	214409-25-3P	214409-26-4P	214409-27-5P	

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in preparation of triazole derivative acaricide and insecticide)

IT	214407-74-6P	214407-75-7P	214407-76-8P	214407-77-9P	214407-78-0P
	214407-79-1P	214407-80-4P	214407-81-5P	214407-82-6P	214407-83-7P
	214407-84-8P	214407-86-0P	214407-87-1P	214407-88-2P	214407-89-3P

214407-90-6P	214407-91-7P	214407-92-8P	214407-93-9P	214407-94-0P
214407-95-1P	214407-96-2P	214407-97-3P	214407-98-4P	
214408-00-1P	214408-01-2P	214408-02-3P	214408-03-4P	
214408-04-5P	214408-05-6P	214408-06-7P	214408-07-8P	214408-08-9P
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254964-40-4P	254964-41-5P	254964-42-6P	254964-43-7P	254964-44-8P
254964-45-9P	254964-47-1P			

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation as acaricide and insecticide)

IT 121-44-8, Triethylamine, reactions 1003-31-2, 2-Cyanothiophene  
 1641-09-4, 3-Cyanothiophene 1897-52-5, 2,6-Difluorobenzonitrile  
 27610-45-3, Sodium sulfide hydrate 57753-80-7 71105-25-4,  
 2-Cyano-3,4,5-trichlorothiophene 79455-63-3 152170-06-4 175137-66-3  
 214408-18-1 214408-23-8 214409-28-6, 3-Hexyl-2-thiophenecarboxylic  
 acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in preparation of triazole derivative acaricide and insecticide)

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; JP 07076577 A 1965 HCAPLUS
- (2) Anon; JP 05310712 1993 HCAPLUS
- (3) Anon; EP 0572142 1993 HCAPLUS
- (4) Anon; WO 9424110 1994 HCAPLUS
- (5) Anon; EP 0648752 1995 HCAPLUS
- (6) Anon; JP 07-33731 1995 HCAPLUS
- (7) Anon; JP 07-76577 1995 HCAPLUS
- (8) Anon; WO 09533732 1995 HCAPLUS
- (9) Anon; JP 08-12657 1996 HCAPLUS
- (10) Anon; JP 08-245315 1996 HCAPLUS
- (11) Anon; JP 08-283261 1996 HCAPLUS
- (12) Anon; JP 08-92224 1996 HCAPLUS
- (13) Anon; EP 717039 A 1996 HCAPLUS
- (14) Anon; JP 73-30742 A 1996 HCAPLUS
- (15) Anon; JP 80-92224 A 1996
- (16) Anon; JP 81-65283 A 1996
- (17) Anon; JP 82-45315 A 1996
- (18) Anon; JP 08-283261 A 1997 HCAPLUS
- (19) Evans; US 4038405 1977 HCAPLUS
- (20) Ito, S; Bulletin of the Chemical Society of Japan 1983, V56, P545 HCAPLUS
- (21) Ohi; US 5567825 1996 HCAPLUS
- (22) Ozaki; US 5284860 1994 HCAPLUS
- (23) Ozaki; US 5318959 1994 HCAPLUS
- (24) Ozaki; US 5380944 1995 HCAPLUS

(25) Ozaki; US 5466705 1995 HCAPLUS

(26) Ozaki; US 5482951 1996 HCAPLUS

(27) Ozaki; US 5616594 1997 HCAPLUS

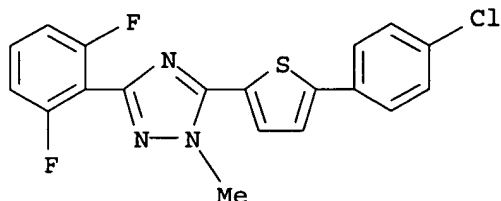
IT 214407-96-2P 214408-02-3P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation as acaricide and insecticide)

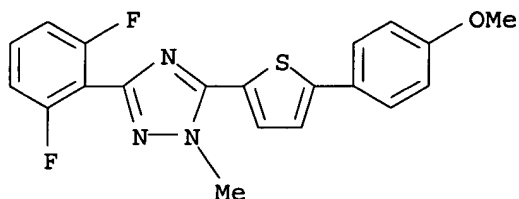
RN 214407-96-2 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



RN 214408-02-3 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2,6-difluorophenyl)-5-[5-(4-methoxyphenyl)-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1998:709073 HCAPLUS

DN 129:302644

ED Entered STN: 09 Nov 1998

TI Preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides.

IN Pechacek, James T.; Tisdell, Francis E.; De Vries, Donald H.; Suhr, Robert G.; Johnson, Peter L.; Stockdale, Gary D.; Ash, Mary L.; Hamilton, Christopher T.; Hatton, Christopher J.; Johnson, George W.; Yap, Maurice Chee Hoong

PA Dow Agrosiences LLC, USA

SO PCT Int. Appl., 81 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D409-04

ICS C07D405-04; C07D409-14; C07D413-14; A01N043-653; C07C327-58; C07C281-04; C07C257-22; C07C311-49

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9847894	A1	19981029	WO 1998-US5317	19980318
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO,				

RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, YU, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI,  
 FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,  
 GA, GN, ML, MR, NE, SN, TD, TG

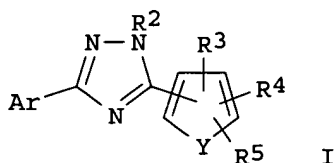
CA 2259246	AA	19981029	CA 1998-2259246	19980318
AU 9868658	A1	19981113	AU 1998-68658	19980318
AU 730027	B2	20010222		
EP 922043	A1	19990616	EP 1998-914256	19980318
EP 922043	B1	20020130		
R: DE, ES, FR, GB, GR, IT, NL				
BR 9804865	A	19990824	BR 1998-4865	19980318
JP 2000516260	T2	20001205	JP 1998-545790	19980318
EP 1113004	A2	20010704	EP 2001-109566	19980318
EP 1113004	A3	20010718		
R: DE, ES, FR, GB, GR, IT, NL				
ES 2167882	T3	20020516	ES 1998-914256	19980318
KR 2000022164	A	20000425	KR 1998-710582	19981224
PRAI US 1997-44697P	P	19970424		
US 1997-66135P	P	19971119		
EP 1998-914256	A3	19980318		
WO 1998-US5317	W	19980318		

## CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9847894	ICM	C07D409-04
	ICS	C07D405-04; C07D409-14; C07D413-14; A01N043-653; C07C327-58; C07C281-04; C07C257-22; C07C311-49

OS MARPAT 129:302644

GI



AB Title compds. [I; Ar = substituted Ph; Y = O, S; R2 = alkyl, haloalkyl, alkenyl, alkynyl, alkoxyalkyl; R3 = H, halo, alkyl, OH, alkoxy, haloalkyl, haloalkoxy, alkoxyalkyl, alkenyl, alkynyl, haloalkenyl, cyano, NO2, SCN, acyl, heterocyclyl, etc.; R4, R5 = H, halo, alkyl, alkoxy, haloalkyl, haloalkoxy, cyano, acyl; adjacent R4R5 = atoms to form a 5-6 membered (substituted) carbocyclic ring], were prepared Thus, 3-hexyl-2-thiophenecarboxylic acid was refluxed with SOCl2 and catalytic DMF in 1,2-dichloroethane and the residue was refluxed with 2,6-F2C6H3C(NH2):NN(Me)CO2CMe3.HI (preparation given) in PhMe to give 76% 3-(2,6-difluorophenyl)-5-(3-hexylthien-2-yl)-1-methyl-1,2,4-triazole. The latter at 50 ppm gave 61-70% control of cotton aphid.

ST thienylaryltriazole furylaryltriazole prepn pesticide; triazole thienyl furyl prepn pesticide; insecticide thienylaryltriazole furylaryltriazole prepn; acaricide thienylaryltriazole furylaryltriazole prepn

IT Acaricides  
 Insecticides  
 Pesticides

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 214407-77-9	214407-83-7	214408-00-1	214408-04-5	214408-08-9
214408-09-0	214408-10-3	214408-15-8	214408-21-6	214408-22-7
214408-28-3	214408-33-0	214408-36-3	214408-39-6	214408-43-2

214408-45-4 214408-51-2 214408-55-6 214408-56-7 214408-57-8  
 214408-58-9 214408-59-0 214408-60-3 214408-72-7 214408-80-7  
 214408-84-1 214408-85-2 214408-86-3 214408-91-0 214408-92-1  
 214408-93-2 214408-94-3 214408-97-6 214408-98-7 214408-99-8  
 214409-00-4 214409-01-5 214409-02-6 214409-07-1 214409-08-2  
 214409-09-3 214409-12-8 214409-13-9

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 214407-74-6P 214407-75-7P 214407-76-8P 214407-78-0P 214407-79-1P  
 214407-80-4P 214407-81-5P 214407-82-6P 214407-84-8P 214407-85-9P  
 214407-86-0P 214407-87-1P 214407-88-2P 214407-89-3P 214407-90-6P  
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 214407-96-2P 214407-97-3P 214407-98-4P 214407-99-5P  
 214408-01-2P 214408-02-3P 214408-03-4P 214408-05-6P  
 214408-06-7P 214408-07-8P 214408-11-4P 214408-12-5P 214408-13-6P  
 214408-14-7P 214408-16-9P 214408-17-0P 214408-18-1P 214408-19-2P  
 214408-20-5P 214408-23-8P 214408-24-9P 214408-25-0P 214408-26-1P  
 214408-27-2P 214408-29-4P 214408-30-7P 214408-31-8P 214408-32-9P  
 214408-34-1P 214408-35-2P 214408-37-4P 214408-38-5P 214408-40-9P  
 214408-41-0P 214408-42-1P 214408-44-3P 214408-46-5P 214408-47-6P  
 214408-48-7P 214408-49-8P 214408-50-1P 214408-52-3P 214408-53-4P  
 214408-54-5P 214408-61-4P 214408-62-5P 214408-63-6P 214408-64-7P  
 214408-65-8P 214408-66-9P 214408-67-0P 214408-68-1P 214408-69-2P  
 214408-70-5P 214408-71-6P 214408-73-8P 214408-74-9P 214408-75-0P  
 214408-76-1P 214408-77-2P 214408-78-3P 214408-79-4P 214408-81-8P  
 214408-82-9P 214408-83-0P 214408-87-4P 214408-88-5P 214408-89-6P  
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 214409-15-1P 214409-16-2P 214409-17-3P 214409-18-4P 214409-19-5P  
 214409-20-8P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 60-34-4, Methylhydrazine 80-17-1, Benzenesulfonylhydrazide 98-59-9,  
 4-Methylbenzenesulfonyl chloride 98-60-2, 4-Chlorophenylsulfonyl  
 chloride 124-63-0, Methanesulfonyl chloride 1003-31-2,  
 2-Cyanothiophene 1641-09-4, 3-Cyanothiophene 1897-52-5 6579-54-0,  
 2,6-Dichlorobenzenesulfonyl chloride 57753-80-7 71105-25-4,  
 2-Cyano-3,4,5-trichlorothiophene 79455-63-3 175137-66-3 214409-28-6,  
 3-Hexyl-2-thiophenecarboxylic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 21075-83-2P 22547-51-9P 37532-03-9P 60230-33-3P 82490-87-7P  
 93061-86-0P 152170-04-2P 165597-32-0P 167907-35-9P 214409-21-9P  
 214409-22-0P 214409-23-1P 214409-24-2P 214409-25-3P 214409-26-4P  
 214409-27-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Atkinson, M; JOURNAL OF THE CHEMICAL SOCIETY 1954, P3319 HCAPLUS
- (2) Fuss, A; US 4727142 A 1988 HCAPLUS
- (3) Ito, S; BULLETIN OF THE CHEMICAL SOCIETY OF JAPAN 1983, V56(2), P545 HCAPLUS
- (4) Kumiai Chemical Industry Co Ltd; EP 0572142 A 1993 HCAPLUS

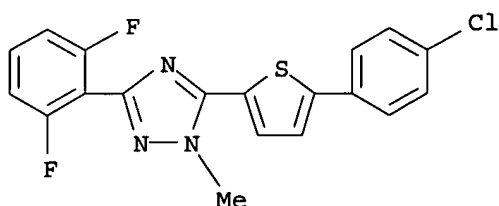
- (5) Kumiai Chemical Industry Co Ltd; EP 0648752 A 1995 HCAPLUS  
 (6) Metz, H; CHEMISCHE BERICHTE 1982, V115(8), P2807 HCAPLUS  
 (7) Osaki, M; US 5380944 A 1995 HCAPLUS  
 (8) Ozaki, M; US 5284860 A 1994 HCAPLUS  
 (9) Shell Research Limited; GB 987253 A 1965 HCAPLUS

IT 214407-96-2P 214408-02-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

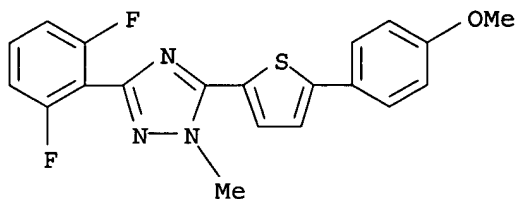
RN 214407-96-2 HCAPLUS

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



RN 214408-02-3 HCAPLUS

CN 1H-1,2,4-Triazole, 3-(2,6-difluorophenyl)-5-[5-(4-methoxyphenyl)-2-thienyl]-1-methyl- (9CI) (CA INDEX NAME)



=> fil uspatall

FILE 'USPATFULL' ENTERED AT 17:06:33 ON 28 OCT 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 17:06:33 ON 28 OCT 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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L6 ANSWER 1 OF 6 USPATFULL on STN

AN 2004:221889 USPATFULL

TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[5-arylthien-2-yl]-1,2,4-triazoles

IN Hegde, Vidyadhar Babu, Carmel, IN, UNITED STATES

Bis, Scott Jerome, Midland, MI, UNITED STATES

Yap, Maurice Chee Hoong, Zionsville, IN, UNITED STATES

Perreault, Denise Marie, Indianapolis, IN, UNITED STATES

Tisdell, Francis Eugene, Carmel, IN, UNITED STATES

Dintenfass, Leonard Paul, Indianapolis, IN, UNITED STATES

Dripps, James Edwin, Carmel, IN, UNITED STATES

Gifford, James Michael, Lebanon, IN, UNITED STATES

Guenthensperger, Katherine Anne, Daleville, IN, UNITED STATES

Karr, Laura Lee, Lebanon, IN, UNITED STATES

Schoonover, Joe Raymond, Brownsburg, IN, UNITED STATES

PI US 2004171661 A1 20040902  
 AI US 2003-664463 A1 20030917 (10)  
 RLI Division of Ser. No. US 2002-244124, filed on 13 Sep 2002, PENDING  
 DT Utility  
 FS APPLICATION  
 LREP DOW AGROSCIENCES LLC, 9330 ZIONSVILLE RD, INDIANAPOLIS, IN, 46268  
 CLMN Number of Claims: 21  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 2007

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, 5'-arylthien-2-yl group in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

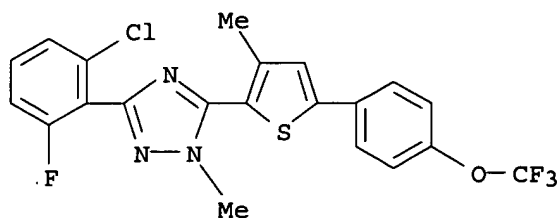
IT 503308-03-0P 503308-04-1P 503308-05-2P  
 503308-06-3P 503308-07-4P 503308-08-5P  
 503308-09-6P 503308-10-9P 503308-11-0P  
 503308-12-1P 503308-13-2P 503308-14-3P  
 503308-15-4P 503308-16-5P 503308-17-6P  
 503308-18-7P 503308-38-1P 503308-50-7P  
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 503308-76-7P 503308-77-8P 503308-78-9P  
 503308-79-0P 503308-80-3P 503308-81-4P  
 503308-82-5P

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPATFULL

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 2 OF 6 USPATFULL on STN

AN 2004:95432 USPATFULL

TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[5-arylthien-3-yl]-1,2,4-triazoles

IN Hegde, Vidyadhar Babu, Carmel, IN, UNITED STATES

Bis, Scott Jerome, Midland, MI, UNITED STATES

Yap, Maurice Chee Hoong, Zionsville, IN, UNITED STATES

Perreault, Denise Marie, Indianapolis, IN, UNITED STATES



Tisdell, Francis Eugene, Carmel, IN, UNITED STATES  
 Dintenfass, Leonard Paul, Indianapolis, IN, UNITED STATES  
 Dripps, James Edwin, Carmel, IN, UNITED STATES  
 Gifford, James Michael, Lebanon, IN, UNITED STATES  
 Guenthenpberger, Katherine Anne, Daleville, IN, UNITED STATES  
 Karr, Laura Lee, Lebanon, IN, UNITED STATES  
 Schoonover, Joe Raymond, Brownsburg, IN, UNITED STATES

PI US 2004072887 A1 20040415  
 AI US 2003-664145 A1 20030917 (10)  
 RLI Division of Ser. No. US 2002-244124, filed on 13 Sep 2002, PENDING  
 PRAI US 2001-322236P 20010914 (60)  
 DT Utility  
 FS APPLICATION  
 LREP DOW AGROSCIENCES LLC, 9330 ZIONSVILLE RD, INDIANAPOLIS, IN, 46268  
 CLMN Number of Claims: 21  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1993

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, 5'-arylthien-3-yl group in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 503308-03-0P 503308-04-1P 503308-05-2P  
 503308-06-3P 503308-07-4P 503308-08-5P  
 503308-09-6P 503308-10-9P 503308-11-0P  
 503308-12-1P 503308-13-2P 503308-14-3P  
 503308-15-4P 503308-16-5P 503308-17-6P  
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 503308-67-6P 503308-68-7P 503308-69-8P  
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 503308-73-4P 503308-74-5P 503308-75-6P  
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 503308-82-5P

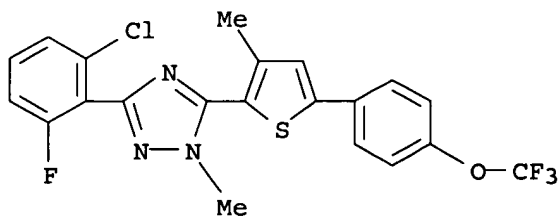
(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P

(preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPATFULL

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 6 USPATFULL on STN  
 AN 2003:194937 USPATFULL

TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[4- or 5-arylthien-2- or -3-yl]-1,2,4-triazoles

IN Hegde, Vidyadhar Babu, Carmel, IN, UNITED STATES  
 Bis, Scott Jerome, Midland, MI, UNITED STATES  
 Yap, Maurice Chee Hoong, Zionsville, IN, UNITED STATES  
 Perreault, Denise Marie, Indianapolis, IN, UNITED STATES  
 Tisdell, Francis Eugene, Carmel, IN, UNITED STATES  
 Dintenfass, Leonard Paul, Indianapolis, IN, UNITED STATES  
 Dripps, James Edwin, Carmel, IN, UNITED STATES  
 Gifford, James Michael, Lebanon, IN, UNITED STATES  
 Guenthensberger, Katherine Anne, Daleville, IN, UNITED STATES  
 Karr, Laura Lee, Lebanon, IN, UNITED STATES  
 Schoonover, Joe Raymond, Brownsburg, IN, UNITED STATES

PI US 2003134748 A1 20030717  
 US 6770665 B2 20040803

AI US 2002-244124 A1 20020913 (10)

PRAI US 2001-322236P 20010914 (60)

DT Utility

FS APPLICATION

LREP DOW AGROSCIENCES LLC, 9330 ZIONSVILLE RD, INDIANAPOLIS, IN, 46268

CLMN Number of Claims: 30

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 2009

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, arylthien-2- or -3-yl in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

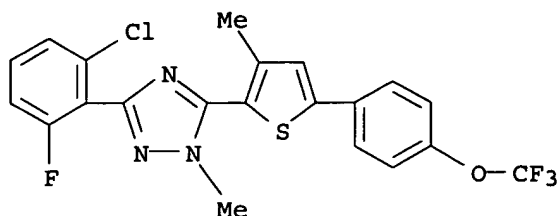
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 503308-03-0P 503308-04-1P 503308-05-2P  
 503308-06-3P 503308-07-4P 503308-08-5P  
 503308-09-6P 503308-10-9P 503308-11-0P  
 503308-12-1P 503308-13-2P 503308-14-3P  
 503308-15-4P 503308-16-5P 503308-17-6P  
 503308-18-7P 503308-38-1P 503308-50-7P  
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 503308-76-7P 503308-77-8P 503308-78-9P  
 503308-79-0P 503308-80-3P 503308-81-4P  
 503308-82-5P  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPATFULL

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 6 USPATFULL on STN  
 AN 2001:112569 USPATFULL  
 TI Process and intermediates for preparing 3-(substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole compounds  
 IN Pechacek, James T., Indianapolis, IN, United States  
 Tisdell, Francis E., Carmel, IN, United States  
 PA Dow AgroSciences LLC, Indianapolis, IN, United States (U.S. corporation)  
 PI US 6262305 B1 20010717  
 AI US 1999-389702 19990903 (9)  
 RLI Division of Ser. No. US 1998-48601, filed on 26 Mar 1998, now patented, Pat. No. US 6015826  
 DT Utility  
 FS GRANTED  
 EXNAM Primary Examiner: Morris, Patricia L.  
 LREP Stuart, Donald R., Mixan, Craig E.  
 CLMN Number of Claims: 1  
 ECL Exemplary Claim: 1  
 DRWN No Drawings  
 LN.CNT 1406

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 3-(Substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole compounds are useful as insecticides and acaricides. New synthetic procedures and intermediates for preparing the compounds, pesticide compositions containing the compounds, and methods of controlling insects and mites using the compounds are also provided.

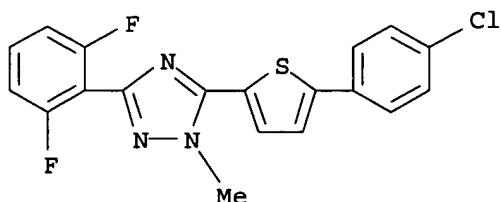
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 214407-96-2P 214408-02-3P  
 (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

IT 214407-96-2P  
 (preparation of 3-aryl-5-thienyl- and 3-aryl-5-furyl-1,2,4-triazoles as pesticides)

RN 214407-96-2 USPATFULL

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-1-methyl- (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 6 USPATFULL on STN  
 AN 2000:7327 USPATFULL  
 TI 3-(substituted phenyl)-5-(thienyl or furyl)-1, 2, 4-triazole compounds

IN Pechacek, James T., 1230 Munsee Ct., Indianapolis, IN, United States  
46260  
DeVries, Donald H., 9878 Woodlands Dr., Fishers, IN, United States  
46038  
Tisdell, Francis E., 68 Parkview Rd., Carmel, IN, United States 46032  
Suhr, Robert G., 1522 Bruner Dr., Greenfield, IN, United States 46140  
Johnson, Peter L., 8016 N. Dartmouth Rd., Indianapolis, IN, United  
States 46260  
Hatton, Christopher J., 2525 State Rd. 38 East, Westfield, IN, United  
States 46074  
Yap, Maurice Chee Hoong, 22 Chestnut Ct., Zionsville, IN, United States  
46077  
Stockdale, Gary D., 8722 Knickerbocker Way Apt. 4D, Indianapolis, IN,  
United States 46240  
Hamilton, Christopher T., 8918 Dandy Creek Dr., Indianapolis, IN, United  
States 46234  
Johnson, George W., 6715 Knollcreek Dr., Indianapolis, IN, United States  
46256  
PI US 6015826 20000118  
AI US 1998-48601 19980326 (9)  
DT Utility  
FS Granted  
EXNAM Primary Examiner: Morris, Patricia L.  
LREP Stuart, Donald R.  
CLMN Number of Claims: 18  
ECL Exemplary Claim: 1  
DRWN No Drawings  
LN.CNT 1575

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB 3-(Substituted phenyl)-5-(thienyl or furyl)-1,2,4-triazole compounds are  
useful as insecticides and acaricides. New synthetic procedures and  
intermediates for preparing the compounds, pesticide compositions  
containing the compounds, and methods of controlling insects and mites  
using the compounds are also provided.

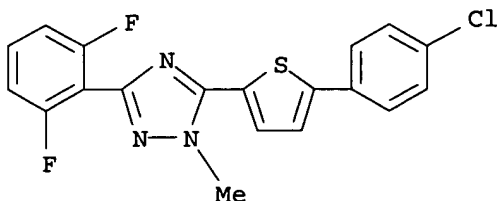
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 214407-96-2P 214408-02-3P  
(preparation as acaricide and insecticide)

IT 214407-96-2P  
(preparation as acaricide and insecticide)

RN 214407-96-2 USPATFULL

CN 1H-1,2,4-Triazole, 5-[5-(4-chlorophenyl)-2-thienyl]-3-(2,6-difluorophenyl)-  
1-methyl- (9CI) (CA INDEX NAME)



L6 ANSWER 6 OF 6 USPAT2 on STN

AN 2003:194937 USPAT2

TI Insecticidal 3-(2,6-disubstituted phenyl)-5-[4- or 5-arylthien-2- or  
-3-yl]-1,2,4-triazoles

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 PA Dow AgroSciences LLC, Indianapolis, IN, United States (U.S. corporation)  
 PI US 6770665 B2 20040803  
 AI US 2002-244124 20020913 (10)  
 PRAI US 2001-322236P 20010914 (60)  
 DT Utility  
 FS GRANTED  
 EXNAM Primary Examiner: McKane, Joseph K.; Assistant Examiner: Shiao, Robert  
 LREP Mixan, Craig E.  
 CLMN Number of Claims: 15  
 ECL Exemplary Claim: 1  
 DRWN 0 Drawing Figure(s); 0 Drawing Page(s)  
 LN.CNT 1826  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB Triazole compounds having a 2,6-disubstituted-phenyl group in the 3-position, arylthien-2- or -3-yl in the 5-position and an alkyl group in the 1-position are effective in controlling lepidoptera, coleoptera, mites and other sucking pests.

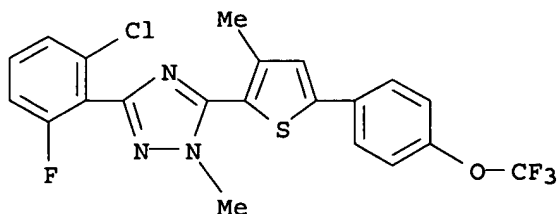
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 503308-03-0P 503308-04-1P 503308-05-2P  
 503308-06-3P 503308-07-4P 503308-08-5P  
 503308-09-6P 503308-10-9P 503308-11-0P  
 503308-12-1P 503308-13-2P 503308-14-3P  
 503308-15-4P 503308-16-5P 503308-17-6P  
 503308-18-7P 503308-38-1P 503308-50-7P  
 503308-51-8P 503308-52-9P 503308-53-0P  
 503308-55-2P 503308-61-0P 503308-63-2P  
 503308-64-3P 503308-65-4P 503308-66-5P  
 503308-67-6P 503308-68-7P 503308-69-8P  
 503308-70-1P 503308-71-2P 503308-72-3P  
 503308-73-4P 503308-74-5P 503308-75-6P  
 503308-76-7P 503308-77-8P 503308-78-9P  
 503308-79-0P 503308-80-3P 503308-81-4P  
 503308-82-5P  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

IT 503308-03-0P  
 (preparation of insecticidal 3-(2,6-disubstituted phenyl)-5-[4-(or 5-)arylthien-2-(or 3)-yl]-1,2,4-triazoles)

RN 503308-03-0 USPAT2

CN 1H-1,2,4-Triazole, 3-(2-chloro-6-fluorophenyl)-1-methyl-5-[3-methyl-5-[4-(trifluoromethoxy)phenyl]-2-thienyl]- (9CI) (CA INDEX NAME)



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